

REMARKS

In view of the foregoing amendments and following remarks responsive to the Final Office Action dated August 9, 2006, Applicant respectfully requests favorable reconsideration of this application.

The Office has now finally rejected all of claims 1-33 in view of Howard in combination with Sears.

Applicant respectfully traverses.

The Present Invention

The present invention comprises a method for synchronizing copies of the same cookie(s) of a particular computer user across a plurality of computers that the user may use to access the Internet and that contain different copies of that cookie(s).

Particularly, it is not uncommon for a single person to have multiple computers that he or she uses on a regular basis for accessing the Web. It is therefore likely that all of those computers will not simultaneously have the most current copy or version of each cookie for that user that is stored on each of those machines.

Thus, in accordance with the present invention, a user with multiple computers registers with a service that will synchronize the copies of the cookies across all of the user's computers. More particularly, a server is maintained on a network such as the World Wide Web for storing cookies and/or cookie change information for a user that registers with the service (hereinafter termed the Cookie Synchronization Server). Each user opens an account and registers all of his or her computers under that account. Each of these computers is equipped with software that monitors all changes made to

cookies at that machine and sends a notification to the Cookie Synchronization Server including sufficient information to at least (1) identify the account to which the client belongs; and (2) allow the cookie synchronization server to recreate the cookie. In a preferred embodiment, the computer simply sends the entire cookie and an account ID with the request.

The Cookie Synchronization Server stores the information and subsequently sends it out to each other client machine registered under that account. The server may, for instance, send out the information to the registered client machines responsive to receipt of requests for the information from the other client machines. The client machines update their copies of the cookies accordingly and send an acknowledgement receipt to the Cookie Synchronization Server. Thus, the Cookie Synchronization Server can keep track of which client machines have the latest version of each cookie so that it can configure itself to send only the data corresponding to those cookies for which the various client machines registered to that account do not already have the latest version of the cookie.

The Howard Reference

The Howard reference pertains to a technique for simplifying for a computer user the accessing of web sites that require the user to register to access the website. Typically, the registration process comprises entering a user ID and/or password.

Figure 4 is most illustrative of the teachings of the Howard reference that the Office deems relevant to the present invention. In accordance with Howard, a plurality

of web sites register to be part of this particular service. The servers operated by those web sites are termed "affiliate servers". In addition, the provider of the invention provides another server on the Web termed the "authentication server". When a user accesses a web site that requires authentication (i.e., entry of a user ID and/or password), the affiliate server passes the client request on to the authentication server instead of servicing it itself. The authentication server sends the client machine a sign-in page. When the user enters the proper password and/or user ID, the authentication server copies the appropriate cookies to the client machine and redirects the user's browser back to the affiliate server. The authentication server also generates an authentication ticket and transmits it to the affiliate server informing the affiliate server that the user has been properly authenticated. The authentication server also communicates the user profile information to the affiliate server through the client machines.

The Authentication server also creates and maintains a cookie that contains a list of the affiliate servers visited by the user during a network session and then, when the user logs off the network, sends a request to each affiliate server in that list, to delete any cookies it placed on the client computer system.

The reference has nothing to do with maintaining cookie among copies of the same cookie across a plurality of different client machines.

The Sears Reference

In Sears, a number of web sites register with a server (called a "cookie server") and provide the server with information regarding what data fields are expected in

cookies submitted from clients to the web site. These registered sites are listed in a cookie list stored at the cookie server and are provided to the client when the client logs into the cookie server. When a client subsequently initiates a connection to a web site within the cookie list, in addition to checking for any locally stored cookies, the client will indicate to the cookie server that it is connecting to that web site. The cookie server then uses cookie requirement information that it obtained from the web site, as well as user specific information, to generate one or more appropriate cookies that the web site may use and transmits the generated cookie(s) to the client. The client then provides the cookies to the web site in the normal course of navigating the web site so that the web site may provide a customized web page to the client.

Thus, instead of the user having to manually enter information so that the web site may generate cookie(s), the cookie(s) are automatically generated by the cookie server. This allows a user to provide personal information once and then access a set of sites as if it was a unified service, receiving a consistent user experience across those web sites.

The client need not store the cookie. Instead, the automatically generated cookie for a particular web site may be stored at the cookie server for transmission to the client when the client subsequently navigates to the web site.

For example, a user may have hundreds of cookies that are used when navigating to hundreds of different Web sites. If the user changes his or her home residence, for example, the user's address and zip code will change. Conventionally, the user would have to navigate through these web sites and change the address for

each web site, thereby allowing the web site to change the corresponding cookie at the client. However, in accordance with the invention of Sears, the user can change the user information in each of these cookies by simply changing the user information stored at the cookie server only once. The cookie server would then update all of the corresponding cookies that the server is storing. Thus, when the user's information changes, the user need not engage in further data entry as the user navigates to each of the web sites. Instead, the user only changes the user information at the cookie server.

Sears does not mention anything about maintaining copies of the same cookie across a plurality of different client machines.

Discussion of Prior Art Rejection

Neither of the applied prior art references has anything to do with synchronizing different copies of the same cookie across a plurality of client machines, which is the subject matter of the present claims.

Particularly, Howard pertains to a technique for simplifying user access to web sites that require the user to register to gain access. More particularly, Howard discloses a technique by which the user can enter necessary authentication information (e.g., user name and password) only once during a network session and be permitted to access multiple web sites requiring such authentication.

Sears, on the other hand, pertains to a technique for synchronizing the same piece of information that commonly might be stored in a plurality of different cookies

(such as a user's address and name). Specifically, Sears discloses a technique in which the user enters the information once and that information is automatically copied into all cookies that have a field corresponding to that piece of information.

Applicant has been arguing continuously during the prosecution of this application a proposition that should be incontrovertible, namely, that it is not possible that these two references, neither of which contains any disclosure about synchronizing different copies of a single cookie at a plurality of different client machines, can teach or suggest a technique for doing just that.

The Teachings of Sears

In response to the previous Office Action, Applicant had argued that the claims patentably distinguish over the prior art of record because Sears does not teach that for which it has been cited. The Office did not address this argument in the Final Office Action. Since the argument has merit, Applicant will herein further reassert and elaborate on it. As noted above, Sears teaches a system in which the client machine does not have to store cookies. Rather, it logs onto the cookie server 310 at the beginning of a web surfing session (col. 8, lines 43-46). Then, when it accesses a new web site, it tells the cookie server that it accessed the web site and the cookie server checks if that web site is in its "cookie list" (col. 9, lines 1-11). If so, the cookie server generates cookies on the fly from information stored in a cookie requirement database 360 (in which is stored data as to what information about the user each registered web

site wants in its cookie) and a user information database 350 (which actually contains the aforementioned information about the user) (col. 9, lines 12-37).

The Office cited Sears for the alleged teaching of "responsive to a change in one or more cookies stored at a first one of said computing devices that is a member of said account, said first member computing device sending a message to a server on said network containing sufficient data from which said changes to said one or more cookies can be determined and the account to which said first member computing device corresponds (Sears teaches change the user information in each of these cookies)".

Sears teaches taking a change in a piece of information contained in a cookie of a given user and propagating it to all cookies of that user. However, it certainly does not teach anything about taking a change to a copy of a single cookie at one client machine and propagating it to another copy of the same cookie at another client machine.

Sears has nothing to do with maintaining consistent information in the same cookie at different machines. Rather, Sears deals with maintaining consistency of information in different cookies in the same machine. Sears never mentions a second user client machine. Sears' specification discusses a single user client machine.

In fact, ironically, what little Sears discloses is essentially the opposite of the claim recitations it has been cited as teaching. Particularly, step (3) of claim 1, for example, recites, *inter alia*, that the client machine sends cookies to the server. The portion of Sears to which the Office refers, on the other hand, discusses a situation in which the cookie server sends cookies to the client. As discussed more fully below,

Applicant has herein amended the claims to specifically recite that the “computing devices” recited in the claims that are members of the account are client machines. Thus, the claims now even more clearly distinguish over the prior art of record.

Accordingly, claim 1 does patentably distinguish over the prior art because Sears does not teach or reasonably suggest to a skilled artisan step (3) of claim 1 of “responsive to a change in said copy of said at least one cookie stored at a first one of said client computing devices that is a member of said account, said first member client computing device sending a message to said server on said network, said message containing sufficient data from which said changes to said copy of said at least one cookie can be determined and the account to which said first member client computing device corresponds”.

As discussed more fully below in the section entitled “The Claims”, the other independent claims, claims 16 and 24, contain similar recitations.

The Response to Arguments Section of the Final Office Action

Since Applicant has fully discussed the invention, prior art references and the differences therebetween hereinabove and in response to the previous Office Action, Applicant will herein focus the remainder of the discussion on the Office’s comments in the Response to Arguments section of the Final Office Action.

In response to Applicant’s previous arguments that the references do not teach synchronizing cookies across a plurality of computers, the Office responded that such recitation does not appear in the bodies of the claims, but only in the preambles and

that the preambles have no patentable weight in the claims. (Paragraph 34 under the Response to Arguments section of Final Office Action).

While Applicant respectfully disagrees at least because the entire bodies of the independent claims are directed towards the goal stated in the preambles of the independent claims, Applicant has nevertheless amended the independent claims so that they now recite synchronizing different copies of a cookie across a plurality of different client machines within the bodies of the claims.

Accordingly, this change alone should allay the Office's concern and render all of the claims patentable over the prior art of record in the Office's view.

Applicant also has amended the independent claims to now specifically recite that the members of an account are client machines. In Howard, the computing devices that the Office is relying on as corresponding to the claimed computing devices whose cookies are to be synchronized are servers, not client machines. Accordingly, the independent claims now even further distinguish over the prior art by reciting that the member computing devices are client machines.

Even further, in paragraph 33 under the Response to Arguments section of the Final Office Action, the Office has elaborated on its position that Howard teaches sending the changed cookie data to other members of the account. Particularly, the Office asserted that this is shown in column 7, lines 15-39 of Howard, in which it describes that the authentication server updates a cookie that contains a list of all web sites visited by the client machine during a particular network session. More

specifically, it describes that this cookie is updated by adding the most recent affiliate server to the list of sites visited.

Column 7, lines 15-39 is quoted below for ease of reference.

The authentication server also updates (or creates) a cookie that contains a list of all sites (for web servers) visited by the user since the last logout from the authentication server. The cookie is updated by adding the current affiliate server to the list of sites visited. This list of sites visited is used to remove cookies from the client computer system when the user logs out of the authentication server. For example, when the user logs out, the authentication server sends a message to each web server on the list of sites visited. Each message is a request for the web server to delete any cookies it placed on the client computer system (e.g., through a browser running on the client computer system). Column 7, lines 27-39.

While this portion of Howard may be considered to teach sending a "changed" cookie to the affiliate server, this is different than what is recited in claim 1 in several ways. First, claim 1 now recites that the changed cookie data is sent to client machines, not server machines. Furthermore, in accordance with language appearing earlier in claim 1, that changed cookie information must have originated at one of the client machines that is a member of the account and was sent to the server from that client machine. In Howard, on the other hand, the changed cookie on which the Office is relying (the cookie with the list of affiliate servers visited; hereinafter the "affiliate server list cookie") is generated at the same computer that is sending it out, i.e., the authentication server itself, not at some other computing devices. It does not come from one of the client machine members of the account.

Thus, there are two flaws in the Office's rejection, namely, (1) the changed cookie in Howard does not come from one of the affiliate servers to the authentication

server, as claimed (rather, is generated at and by the authentication server) and (2) the affiliate servers are servers, not client machines, in any event.

In paragraph 30 under the Response to Arguments section of the Final Office Action, the Office takes issue with Applicant's assertion that the proposed combination is not suggested in the prior art. Particularly, the Office asserted that it would have been obvious to add Sears's teachings to the device of Howard because "it would have provided specific functions that convenience for the user in forgoing the need to manually enter information, and without burdening the user with entering such client information".

Applicant respectfully disagrees for the same reasons previously argued. However, perhaps Applicant's point can be more clearly presented by rephrasing the argument. Particularly, perhaps the point is more clearly presented by considering what the proposed combination of the teachings of the two references would look like, rather than considering the issue of whether the proposed combination is suggested per se.

Particularly, as will be described below, the resulting device would not resemble the invention as claimed in the independent claims. More particularly, as previously noted, with respect to step 5 of claim 1, the Office is relying on the "affiliate server list cookie" of Howard. With respect to step 3 of claim 1, the Office is relying on Sears' teaching of entering relevant information only once and then copying that information into a plurality of cookies having fields corresponding to that piece of information.

The proposed combination would result in a method and/or apparatus that makes no sense. Sears's feature of cross populating a piece of cookie information across a

plurality of cookies has no reasonable application to Howard's "affiliate server list cookie". Particularly, Howard's "affiliate server list cookie" contains information unique to that cookie (namely, the list of affiliate servers visited). By definition, there is no other cookie that would contain this information. Furthermore, the "changed" information (i.e., the latest affiliate server added to the list of visited web sites) is immediately inserted into the "affiliate server list cookie" as soon as the user visits that web site. Sears's aforementioned feature of copying such information into other cookies would have no applicability in this situation.

Thus, it does not appear that the proposed combination is even possible. In any event, to whatever extent there may be any sensible method or apparatus that could result from the proposed combination, it certainly would not be the invention claimed in the present independent claims.

Accordingly, as stated previously, these two references, neither of which has anything to do with maintaining consistency of the same cookie across a plurality of different client machines, cannot possibly teach a method or apparatus for doing just that.

The Claims

Contrary to the Office's assertions, Sears does not teach step (3) of claim 1 as explained above. Further, the proposed combination would not result in the present invention in any event and is not suggested in the prior art. The claims have furthermore been amended (1) to specifically recite that the that the

computing devices whose cookies are being synchronized are client machines on the network, (2) to specifically recite the cookie(s) in question are different copies of the same cookie(s) at different client machines, and (3) to specifically recite these features in the bodies of the claims. Accordingly, claim 1 patentably distinguishes over the prior art for all of the reasons set forth above.

Claims 2-15 depend from claim 1 and, therefore, distinguish over the prior art of record for at least all of the same reasons as claim 1.

Independent claim 16 is similar to claim 1 and therefore distinguishes over the prior art of record for at least all of the same reasons as claim 1. Particularly, claim 16 is similar to claim 1, the major difference being that claim 16 is written specifically from the perspective of the server and, therefore, recites acts performed by the server, whereas claim 1 is a system claim reciting acts performed at both the client machine and the Cookie Synchronization Server.

Claims 17 through 23 depend from claim 16 and, therefore, distinguish over the prior art of record for at least all of the reasons discussed above in connection with claim 16.

Independent claim 24, of course, also pertains to the same general invention as claims 1 and 16. Claim 24, however, is written from the perspective of one of the client machines that is a member of the account. Step 2 of claim 24 corresponds generally to step (3) of claim 1, except from the opposite perspective.

Claims 25-32 depend from claim 24 and therefore distinguish over the prior art for at least all of the reasons set forth in connection with claim 24.

Miscellaneous

Applicant further has entered various minor changes to the claims in order to improve their form. For instance, Applicant has amended the claims as necessary to refer to the "data" comprising the changed cookie information, rather than the cookies themselves in order to make the claim language consistent across the various claims. Furthermore, Applicant has amended claims 10 and 28 to recite that the changed cookie information is requested by the client machines when the machines log on to the network. The previous language which referred to accessing the network was perhaps ambiguous insofar as a client machine might be considered to "access" the network every time it issues a request over the network. These claims are now more consistent in language with the embodiment discussed on page 16, lines 14-15 of the specification in which a client machine requests changed cookie data when it "logs on to the network".

Conclusion

In view of the foregoing remarks, this application is now in condition for allowance. Applicant respectfully requests the Office to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

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